

# SURGICAL CORRECTION OF IRREDUCIBLE VENTRAL HERNIA (ENTEROCELE) IN A PIGLET

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## ABSTRACT

A young piglet with the history of abdominal swelling was presented for treatment and diagnosed as irreducible ventral hernia. Hernioplasty was done using non-absorbable mesh (polypropylene) under diazepam ketamine anaesthesia and the animal had uneventful recovery.

**Keywords:** Piglet, hernia, hernioplasty and polypropylene mesh

## INTRODUCTION

A hernia is the protrusion of an organ or a part through a defect in the wall of the anatomical cavity in which it lies. (Slater, 2003). It can be either congenital or acquired due to weakness of abdominal wall caused by injuries. The abdominal contents migrate to form a hernial sac. Adhesion is the major complication due to hernia. Hernia repair in these animals may require excision of fibrotic tissues. (Fossum, 2013). A case of such type in piglet is reported in the present communication.

## CASE HISTORY AND OBSERVATION

A non-descript young male piglet of about five months of age was brought to Department of Surgery and Radiology, College of Veterinary Science, Khanapara

with a history of swelling in the lower abdomen. Owner reported that, castration was done one month before presentation of case and after that a swelling was noticed which increased gradually. History was suggestive of inguinal hernia, swelling was observed in lower abdomen from anterior portion of abdomen and extend up to the scrotum (Fig. 1). On palpation a hernial ring could be palpated at the anterior right lower abdomen. The swelling was soft and irreducible in nature suggesting chance of adhesion. Clinical examination showed that all vital parameters are in the normal range. The piglet was opted for reconstructive surgery on the next day.

## TREATMENT AND DISCUSSIONS

The animal was anaesthetised using diazepam at 0.5 mg/Kg bodyweight intravenously followed by ketamine hydrochloride at 10 mg/Kg bodyweight intravenously. After placing the animal in dorsal recumbency, local infiltration was done with lignocaine hydrochloride (2%). An elliptical incision was made over hernial sac on skin. Hernial contents were found to be intestinal loops (Fig. 2). The contents were exteriorised and adhesion was separated and the fibrin clots were removed. The hernial ring was located and

contents were repositioned into abdominal cavity. Since the ring size was around 4 cm diameter, polypropylene mesh was used to close the ring. Using non absorbable nylon suture material, the mesh was attached to the ring (Fig. 3) by simple interrupted pattern. Abdominal muscles were sutured with catgut. The subcutaneous and skin sutures were done in routine manner. Post-operatively, the animal was treated with antibiotic (ceftriaxone) and non-steroidal anti-inflammatory drugs (meloxicam) for a period of five days. The wound showed healing and skin sutures were removed on 10<sup>th</sup> post-operative day.

Hernia reduces the economic value of animal by lowering the productivity and also reproductivity (Abdin-Bey and Ramadan, 2001). It can be corrected in several ways surgically and non-surgically, the surgical technique can be either herniorraphy or hernioplasty. If the ring size is more, hernioplasty should be performed in which a prosthetic material should be used in order to close the ring. This material can be of different varieties including tissue graft. Commonly used material is non-absorbable mesh like polypropylene mesh. In case of abdominal hernias of any size, mesh repair have advantage over suture repair in recurrence of hernia. (Luijendijk *et al.*, 2000). In the above discussed case, no postoperative complications were observed till complete recovery.

## SUMMARY

A non-descript male piglet diagnosed as having inguinal hernia after castration was suggested for surgical correction. The hernial ring was about four centimeter diameter. Hernioplasty was performed using polypropylene mesh. The patient made an uneventful postsurgical recovery.

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**Fig 1.** Hernial swelling on presentation



**Fig 2.** Adhesion on intestine



**Fig 3.** Hernioplasty with polypropylene mesh

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